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ABSTRACT

The human values system is a heretofore unresearched area in the developmental changes occurring at the transition to parenthood. Pregnant couples (N=44) and a control group of nonpregnant couples (N=33) were interviewed three times over a 9-month period to examine the impact of the transition to parenthood on the organization of both instrumental and terminal values and to examine whether the transition to parenthood would cause commitment to family to supplant a commitment and concern for the larger society. A series of values measures was administered to determine nonvalues-related attitudes, instrumental and terminal values, relative weight of familial values, and values changes. Cross sectional analyses of differences in values showed that couples in the pregnant group underwent greater instrumental and terminal value system changes than couples in the nonpregnant group. In addition, those with pregnancy-related medical difficulties and those with unplanned pregnancies showed greater value changes. The findings support a model of value system change at the transition to parenthood in which the value system reorganizes itself around the central importance of family security and the importance of values concerned with social justice and responsibility decreases. (MCF)

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LONGITUDINAL INVESTIGATION OF VALUE SYSTEM CHANGES AT TRANSITION TO PARENTHOOD

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Running head: Value System Changes at Transition to Parenthood

Abstract

This study investigates value changes at first parenthood. Forty-four primaparous couples and 37 nonpregnant couples were interviewed and tested at times corresponding to the third and seventh month of pregnancy and 3 months post-partum. Subjects in the pregnant group underwent greater instrumental and terminal value system change than subjects in the nonpregnant group. Subjects who experienced unusual pregnancy-related medical difficulties underwent greater value changes than those who had not. Subjects who had an unplanned pregnancy had greater value change than those who had planned the baby. Support was found for a model of value change at the transition to parenthood in which the value system reorganizes itself around the central importance of Family Security. Simultaneously, there appears to be a decrease in the importance of values concerned with social justice and social responsibility. The findings are discussed with respect to the importance of the transition to parenthood as a lifespan developmental event and with respect to the belief that systematic shifts in moral orientation occur during adulthood.

Longitudinal Investigation of Value System Changes at Transition to Parenthood

Introduction

The transition to parenthood is a major, and perhaps the most universal event in adult development, a time when changing biological, psychological, and social-cultural forces influence an individual's experience and behavior, causing systematic change and reorganization. Investigators are learning that many areas of psychological experience and behavior are affected, including self-esteem and self-image (Curtis-Boles, 1981), marital communication and adjustment (Boles, 1981; Ryder, 1973), social roles (Cowan & Cowan, 1981; Pleck, 1979) and sex role behavior (Gladieux, 1978).

An important, heretofore unresearched area with regard to developmental change at the transition to parenthood, is the human value system--the moral and personal values which serve as "guiding principles in life" (Rokeach, 1973). A person's moral and personal values form the core of his/her orientation toward living. Demonstrating that these values undergo a series of systematic changes when one becomes a parent should have important implications for our understanding both of individual development and of family processes, since value change in the parent may come to influence the occurrence and timing of future family events such as decisions about family size, parenting styles, etc.

Furthermore, whether or not values reorganization takes place at the transition to parenthood has implications for adult moral development. Developmental psychologists who have studied the development of moral think-

ing and prosocial behavior have up to now looked primarily to the childhood and adolescent years for evidence of systematic developmental shifts in these phenomena (e.g. Hoffman, 1970; DePalma, 1974; Eisenberg-Berg, 1977; Kohlberg & Gilligan, 1971). On the other hand, social psychologists, who have studied moral values in adults (e.g. Rokeach, 1968, 1973), generally have not been concerned with developmental issues. Thus, linking the adult developmental event of transition to parenthood to systematic moral and personal values changes would represent an important extension into adulthood of the moral development perspective.

The model of the human value system used in this investigation is based in part on the theory and research of Milton Rokeach (e.g. 1968, 1973). Rokeach's work represents perhaps the most extensive attempt to study values and their relationship to other characteristics of the person and environment of any psychologist to date and his efforts included the development of a research instrument to measure values which has proven very useful in research with adolescents and adults.

Rokeach's theory of values is founded on several theoretical assumptions, each supported by at least some empirical data (see Rokeach, 1973). First, all individuals possess values, but the total number of values that a person possesses is relatively small. Secondly, universality to the values is assumed to some degree. Thirdly, individual values are believed to be organized into "value systems" where values exist on a continuum of relative importance. Fourthly, the development of human values can be traced to culture, society, and to personality. Fifthly, Rokeach believes that the effects of human values

will be evident in just about all phenomena that social scientists might investigate or consider appropriate for study.

A value is defined as "an enduring belief that a specific mode of conduct (an instrumental value) or end state of existence (a terminal value) is personally or socially preferable to an opposite or converse mode of conduct or end state of existence." The value system is defined as "an enduring organization of beliefs concerning preferable modes of conduct or end states of existence along a continuum of relative importance (1973, p. 4)."

Value Systems

For Rokeach, the value system exists as a hierarchy of values, an assumption shared by other theoreticians and investigators of human values (e.g. Kluckhohn and Strodbeck, 1961, Aronfreed, 1976). He suggests that after a new value is learned it becomes integrated into an organized system of values in which each value is ordered in priority with respect to other values, i.e. with respect to its relative importance as a guiding principle of life. This conceptualization of a value hierarchy then forms the basis for Rokeach's ideas of values change. While Rokeach does not rule out the possibility that individual differences exist in the values that comprise different people's value systems, or that a person's values which make up his hierarchy can change over time, he pays most of his attention to changes that occur within a particular value system with respect to the relative priority or importance of the values within that system. He believes that the value system is stable enough to allow for sameness and continuity of a unique personality within a given culture and society, and yet, it is unstable enough to permit change and rearrangement of value priorities as a result of changes in culture, society, and

personal experience. Although Rokeach does not focus on developmental changes, the major focus of this research, his conceptualization certainly allows for systematic maturational and socialization influences on the value system.

In the current study it is hypothesized that the transition to parenthood constitutes an adult developmental event of sufficient importance to impact substantially on the organization of the instrumental and terminal value system. This hypothesis is consistent both with Rokeach's model of values and with current models of life-span development. The transition to parenthood can be viewed variously as an adult developmental event (Baltes & Willis, 1977; Britton & Britton, 1972; Huston-Stein & Baltes, 1976; Lerner & Ryff, 1978); a series of developmental tasks (Duvall, 1977); or as a developmental crisis (Dyer, 1963; Erikson, 1959, 1963; Hobbs, 1965). With regard to this last model, while early research on first parenthood emphasized the severity of the "crisis" experienced by the new parent (e.g., LeMaster, 1957), later studies, using more representative samples, have found substantially less crisis (e.g., Dyer, 1963; Hobbs, 1965, 1968; Hobbs & Cole, 1976; Hobbs & Wimbish, 1977; Russell, 1974) and have tended to conceptualize first parenthood as a normal crisis or life transition.

All of the above approaches share the belief that developmental changes across the lifespan occur when some new force or new factor, whether internal or environmental, impacts on the individual and necessitates a reorganization of his or her present level of psychological experience. Thus, some disruption or normal crisis is considered the impetus for developmental change, and within limits, the greater the experience of crisis, the greater may be the potential for growth and development to emerge from the crisis. Whether this is true for the transition to parenthood will be investigated in the current study by examining the impact on values change of two events that have been found in previous research

to be related to the degree of crisis experienced by the new parent: the pregnancy being unplanned (Russell, 1980) and the expectant mother undergoing significant medical complications related to the pregnancy (Larsen, 1966).

The nature of the specific value shifts that are expected to occur is of central concern to understanding the process of value change at the transition to parenthood. Using the model of a hierarchically-ordered value system, the question can be asked, "which instrumental and terminal values will rise in ranking and which will fall in ranking at the transition of parenthood?" It is expected that at the transition to parenthood the value shifts will be in the direction of the increased importance of the terminal value Family Security in the new parents' lives. Values which support the security of the new nuclear family unit are expected to rise in ranking in the value hierarchy, while those values which interfere with, or pose threats to the survival and well-being of the family unit are expected to decrease in ranking. Importantly, as the new parent becomes preoccupied with family concerns inherent in establishing the nuclear family on a firm footing, it is expected that there will be a substantial decline in the importance attached to values of social justice and social responsibility, since these look outward to the welfare of society as a whole rather than inward to the needs of the nuclear family.

While there is little direct previous research on the increasing importance of the value Family Security, this hypothesis is consistent with a sociobiological perspective of the role of parenthood in human evolution (e.g., Barash, 1973; Gutmann, 1975) which views the psychological experience of parenthood as closely linked to the primary role of the parents in ensuring the survival of their offspring. This view is also consistent with the importance psychologists attribute to processes of parent-infant bonding and attachment which are triggered by the infant's characterizing and signals and which stimulate the

parent toward further nurturance and caretaking (e.g. Feldman & Nash, 1978). Such processes should predispose both mother and father to become very concerned with the nurturance of, provision for, and protection of their offspring. Social-cultural forces also stress the importance of introducing a child into a parent's life. Parents are expected to be willing to make large sacrifies for the welfare of their children. Moreover, this represents a substantial shift from the self-oriented behaviors and concerns that are tolerated, and even encouraged in the adolescent by the culture, including pursuing independence, pleasure, and exciting experiences (Erikson, 1963,1968).

There is also little direct evidence from previous research pertaining to the question of whether values centering on social justice or social responsibility decrease in importance at the transition to parenthood. We could expect that, to some degree, an individual's commitment and concern for the larger society will be supplanted at the transition to parenthood by the new commitment to a child and a nuclear family unit. Such a turning away from societal concerns through an investment of energy into the family, may even be a requirement for successful adjustment and resolution of new parenthood's many tasks and crises. Rokeach's terminal value Equality defined as "brotherhood, equal opportunity for all" taps directly into the individuals valuing of social justice and social responsibility. It is expected to decrease in importance at the transition to parenthood.

An interesting manifestation of the hypothesized decrease in social concern occurs at times of conflict between what would be in the best interests of the nuclear family unit and what would be in the best interests of society as a whole. Such a conflict could present the new parent with a crisis of morality. Up to now, he or she has been socialized to believe that being a good

citizen and being concerned about the social good were essential aspects of leading a moral life. Now, the new parent is faced with a newly felt, powerful parental imperative (Gutmann, 1975) whose purpose is to promote his or her own child's survival and welfare. If the parent experiences little sense of danger and feels that there are sufficient resources available, there will probably be little problem in both meeting society's expectations and upholding the welfare of the family. But the initial period of parenthood, (and maybe all of parenthood) is experienced and, to a certain extent is, objectively, a "period of chronic emergency" (Gutmann, 1975). It is quite likely, in this situation, that the new parent will experience some conflict between the family's needs and the society's demands. Hill (1978) likened such a conflict to Hardin's (1972) concept of the tragedy of the commons and writes that allowing families to make choices results in a despoiling of the commons since family interests and societal interests are not necessarily in some kind of coordinate and optimum relationship. Banfield (1958) used the term amoral familism to refer to the situation in which a person chooses to attend to his or her child's or family's well-being at times when there is some pressing, but conflicting social duty. A measure of amoral familism will be employed in the present study. It is expected to increase at the transition to parenthood.

Other values that are either supportive of or detrimental to family security may also shift in importance along the values hierarchy. Of the values identified by Rokeach (1968, 1973), the instrumental value Loving, defined as "affectionate, tender" should promote family security on the part of the new parents, and therefore is expected to rise in importance. Rokeach makes a distinction

between this value and the terminal value Mature Love defined as "sexual and spiritual intimacy," and which is not expected to increase in importance at the transition to parenthood. Other values which are expected to increase in importance at the transition to parenthood are the terminal value A Comfortable Life defined as "a prosperous life" and an Impulse Control value composite defined as the summed rankings for the instrumental values, Self-Control defined as "restrained, self-disciplined" and Responsible defined as "dependable, reliable." Values which are expected to decrease in importance are those dealing with personal pleasures and self-enhancement; rather than with the family's security and well-being. The rankings for 4 values were summed to form the Pleasure-Self-Enhancement value composite. The values which form this composite are the terminal values Exciting Life defined as "a stimulating, active life, Pleasure defined as "an enjoyable, leisurely life," and Social Recognition defined as "respect, admiration," as well as the instrumental value Independent defined as "self-reliant and self-sufficient."

Method

Subjects

Two groups of married couples were sought for this research. The "pregnancy" group consisted of 44 couples expecting their first child, all living within a 30 mile radius of Ann Arbor, Michigan.[1] The couples were all volunteers who were contacted either through their obstetrician or through the Lamaze Childbirth Preparation Association of Ann Arbor, Inc. where they were enrolled in an early pregnancy childbirth preparation class.

A second group of 33 married couples residing in the same area who had not yet had a pregnancy was recruited for a "nonpregnant" comparison group. These couples, who were also volunteers, were all either planning to have, or were

considering having children in the future. These couples were recruited from a number of different sources: nonhealth care workers at the University of Michigan Hospital, University employees, contacts of other subjects, and personal contacts by the researchers. The pregnant and nonpregnant couples were primarily Caucasians of middle or lower middle socio-economic status. A breakdown of the personal characteristics of the two groups is shown in Table 1.

Procedure

Selection of Pregnant Couples. Letters were sent to a number of obstetricians in the Ann Arbor area, as well as to the director of the area Lamaze program explaining the nature of the study and requesting their permission and assistance with handing out subject solicitation letters to women in the first three months of pregnancy who sought their services. The subject solicitation letter explained the research as being a study examining the social effects of pregnancy, including a focus on personal and social values and it outlined that their and their spouse's participation would involve three interviews over a 9 month period. If the couple agreed to participate, the scheduler inquired about the due date of the baby and, using this date as a guideline, scheduled the first of three interviews.

Selection of Nonpregnant Couples. The nonpregnant couples were recruited by the researchers from one of the several sources described above. For the nonpregnant couples, the research was described as a study examining the influence of married life and family formation on couples' opinions and on their personal and social values. No reference was made to the intention of

the researchers to compare their responses directly to the responses of a group of pregnant couples, but rather, it was explained in a general way that different types of married couples were participating in the research, i.e., differing in their ages, how long they were married, whether they currently were having children, etc., and that the researchers were interested in examining how all these factors related to individuals' values and attitudes. This was done in order to prevent the possibility that the nonpregnant couples would be influenced in their responses by the knowledge that their answers were being contrasted to the answers of a group of pregnant couples. While the experimental set was therefore somewhat different for the nonpregnant and pregnant couples, the difference was thought to reflect a naturally occuring difference in orientation and outlook between these two groups.

Interviews. Couples were interviewed three times over a nine month period. For the pregnant couples, the first interview was performed during the third or fourth month of pregnancy, the second interview approximately four months later during the seventh month of pregnancy, and the third interview five months after the second, corresponding to a time three months after the baby was born. Interviews with the nonpregnant couples were also performed over a period of nine months, corresponding to the three time periods for the pregnant couples.

The interviews took place at the couples' homes at a time arranged by the project scheduler. Husbands and wives were interviewed separately. The interview schedule was administered by undergraduate and post-undergraduate students who had been selected for their interviewing skills and talents and had then undergone a training period of approximately three weeks. Interviewers

always worked in male-female pairs with the husband always being interviewed by the male interviewer and the wife by the female interviewer. This was done with the expectation that, in general, subjects would feel more comfortable with a like-sex interviewer.

Description of Values Measures

For the pregnant couples, values items were administered following an initial interview which focused on non-values related attitudes and expectations related to the effects of pregnancy and the birth of the child. The nonpregnant couples were also administered an initial non-values related interview prior to the values items. This latter interview consisted of many of the items which the pregnant couples were asked. While it ommitted the items focusing on the pregnancy and childbirth which, of course, were not relevant to these couples, it was child-focused in that many of the questions were concerned with the couple's plans for having children, attitudes towards children, experience with children, and the importance of parenthood to these subjects. Where appropriate, identically worded items from the pregnant couples' interviews were asked in the nonpregnant couples' initial interviews.

Rokeach Value Survey. The Rokeach Value Survey was used to measure the individuals instrumental and terminal values, including the specific values hypothesized above to be significantly influenced by the transition to parenthood. Subjects are asked to rank order 18 alphabetically listed terminal values along the dimension of the relative importance of each of the values to themselves. Following this, they are asked to rank a second list of instrumental values, also along the dimension of relative importance.

Amoral Familism Scale. The scale for Amoral Familism was based on a modified version of Kohlberg's (1958) well-known Diesing dilemma describing a man who, during war time, had to decide whether to go to a fire post where he had been made chief and was presumably in a position of responsibility for the lives of a large number of people, or to go to his family who lived in another part of the city and were presumably in great danger from the bombing. In the dilemma story it was stated that there was another person assigned to the area where Diesing's family lived. As in Kohlberg's original version, the subject is first asked to state whether he believes that Diesing was right or wrong to have made the choice of going to his family and to explain why he believed this. In Kohlberg's model of moral development, the concern is with the stage of reasoning the subject uses to arrive at his/her judgment and not so much with the actual direction of the choice itself. In this research, it is the choice or value which is of primary concern. The ethical system reflected in our system of laws and in the morality of most people in our society would tend to view Diesing's action as wrong, since it forsook his duty and put a large number of people in danger; and since presumably his family was being cared for as well as possible by the person assigned to the post in his home area. Thus, at least from the basis of the prevalent morality of our culture, one would judge that in this situation, doing one's duty and upholding the welfare of the larger community would take precedence over going to the aid of one's family. After indicating whether he/she believed Diesing's actions was right or wrong, the subject was asked to indicate, on a four point scale ranging from "not very serious" to "extremely serious, as bad or worse than murder,"

how "immoral" an act he/she thinks this was. This question was asked to all respondents, even if they had originally stated that they felt the action was right, and it was their response to this item (i.e. "extremely serious" signifies low amoral familism) that comprised the index of Amoral Familism.

The Third Time Values Interview. The Third Time Values Interview was administered to the pregnant subjects as the final task of the third-time interview. In this way, it could not influence other values-related measures. In the Third Time Values Interview, the subjects gave their own perceptions about what their most important values are, how these had changed over the previous year, and what factors they believed had led to the changes. Two additional interview items focused on the new Parents' subjective sense of whether, over the course of the transition to parenthood, they had become more concerned or less concerned about other people outside the family and whether they believed their values had changed more at the time of having the baby or at the time of getting married.

Reliability of the Third Time Values Interview Items

Transcripts were made from tape recordings of the Third Time Values Interview. Two coders then rated each of the open-ended interview items and percentage of agreement on the assignment of categories was calculated for these items. Discrepancies between the two coders on a particular item were resolved through discussion. For each item the reliability was sufficiently high (ranging from 78.3% to 96.5%) to warrant further analysis using the categories of the rating scale.

Statistical Tests

Cross-sectional analyses of differences in values at the third month of pregnancy and the third month post-partum constitute the major statistical analyses to be reported. In addition, for the analyses of overall value system

change, separate statistical tests were performed to examine extent of value system change between the third and seventh months of pregnancy and between the seventh month of pregnancy and the third month post-partum.

Results

Background Characteristics of the Pregnant and Nonpregnant Groups

Because the subjects were self-selected to groups, it is necessary to show that the pregnant and nonpregnant groups are similar on a variety of demographic characteristics which might influence values, and which might be a confound of any between-group differences that are found in values. T-tests were therefore performed on each of the demographic variables whose means and standard deviations are shown in Table 1: age, length of marriage, education. SES, and degree of religiosity. The two groups did not differ significantly on any of these variables. In addition, the religious affiliations of the two groups of subjects were compared. Protestants made up the greatest proportion of both groups, followed by Catholics. The lack of major differences between pregnant and nonpregnant groups with respect to the background variables suggests that the two groups come from a single population, a necessary precondition for the analyses to be described below.

Insert Table 1 about here.

Changes in the Overall Value System Between the Third Month of Pregnancy and the Baby's Third Month

The focus of attention now turns to the major question of whether there was differential value change across the three interviews. The first hypothesis to be tested is the expectation that there will be greater overall shift in the

value systems of the pregnant subjects. Three separate indices of overall value system shift were derived by calculating the average absolute change in rankings for all the values in the terminal, instrumental and combined (terminal plus instrumental) value systems between the first and third interviews. Mann Whitney U tests were then performed on the three value system change scores. Table 2 shows the results of these analyses. Males in the pregnant group showed significantly greater instrumental and combined value system shifts than males in the nonpregnant group. These males also showed a marginally significant shift for the terminal value system. No such overall value system shift was shown by the pregnant females in relation to the nonpregnant females.

Insert Table 2 about here.

In order to investigate these shifts in more detail, a separate set of terminal, instrumental, and combined value system change scores were calculated for the period between the first and second and second and third interviews separately, and Mann Whitney tests were again performed. The results showed that males in the pregnant group underwent a significant shift in the terminal value system, instrumental value system, and combined value system between the first and second interviews, and then a further significant shift in the instrumental and combined value systems, and a marginally significant shift in the terminal value system between the second and third interview. Again there was no significant value system shifts for the pregnant females for either time period, though there was a marginally significant shift for the instrumental value system for the time period between interviews one and two (see Table 2).

It was further predicted that there would be a greater value system change among subjects who experienced serious difficulties of a medical nature during the pregnancy (i.e. a greater crisis) than among subjects for whom the pregnancy was without significant medical problems. To investigate this question, individuals who scored highest on a Problem Pregnancy Scale of the Background Interview were compared with individuals who scored lowest. A high score on this scale indicated that the subject or the subject's spouse experienced a serious medical health problem during the pregnancy, the delivery, or the period of the baby's first 3 months of life. For a subject to receive this score, the problem had to have presented a threat to the long-term well-being of parent or baby. A low score on the Problem Pregnancy Scale indicated that parent and baby experienced no unusual medical health problem. Mann Whitney U tests were then performed for the measures of overall value change discussed above--the average absolute shift in terminal values, instrumental values, and the combined value system. The results of these tests showed a significant shift in the combined value system ($U=4.0$, $p<.04$) and a marginally significant shift in the instrumental value system ($U=4.5$, $p<.05$) for males in the high problem group. For females in the high problem group there was a significant shift in the instrumental value system ($U=5.5$, $p<.02$) and a marginally significant shift in the combined value system ($U=5.5$, $p<.08$). These results are shown in Table 3.

Insert Table 3 about here.

Similarly, it was predicted that the occurrence of a nonplanned pregnancy, would result in greater value system shift. To examine this, subjects in the pregnant group were divided into two groups: those who reported in the Background Interview that they were actively trying to have a baby, and those for whom the pregnancy was either not actively sought or actively not sought. Mann Whitney U tests were again performed. The results showed that the males in the not-planning group underwent a significantly greater shift in the instrumental value system ($U=16.5$, $p<.04$) and a significantly greater shift in the combined value system ($U=17.0$, $p<.05$). Females in the not-planning group underwent a significantly greater shift in the terminal value system ($U=15.5$, $p<.04$) and a significantly greater shift in their combined value system ($U=13.5$, $p<.02$). These results are shown in Table 4.

Insert Table 4 about here.

Changes in Specific Target Values

A series of Mann Whitney U tests were performed to examine changes in the particular target values for which predictions were made (see Table 5). It was predicted that the value Family Security would increase in importance at the transition to parenthood.[3] The findings for Family Security were generally in the expected direction. At the third month of pregnancy, Family Security, measured with the value Survey, was significantly higher for both expectant fathers and expectant mothers. ($U=326.0$, $p<.02$ for males; $U=279.5$, $p<.003$ for females). This value then became even more important for the pregnant group subjects by the time of the third interview, although the change reached significance only for males ($U=119.0$, $p<.01$ for males).

It was further predicted that the value Equality, since it focuses on societal concerns, would decrease in importance at the transition to parenthood. Change in the Value of Equality was measured both with respect to its own ranking on the value Survey and with respect to the ranking of Family Security. The results partially support the prediction that this value would be less important for the pregnant subjects. Equality was ranked significantly lower by the expectant fathers at the third month of pregnancy, ($U=294.0$, $p < .01$), but did not change significantly between the first and third interviews for either the pregnant group males or females. When the ranking of Equality was examined relative to the ranking of Family Security the results showed that both expectant mothers and fathers had greater Equality minus Family Security scores at the third month of pregnancy ($U=274.5$, $p < .002$ for males, $U=317.5$, $p < .01$ for females), and that there was a marginally significant change in this value between the third month of pregnancy and the third month post-partum for males in the pregnant group relative to the control group ($U=1.55.5$, $p < .09$).

Mann Whitney U tests were also performed to examine the prediction of a relationship between Amoral Familism and transition to parenthood. There were no differences between the pregnant and nonpregnant subjects at the third month of pregnancy. An examination of change in Amoral Familism between the third month of pregnancy and the third month post-partum showed a significant increase in Amoral Familism for the females in the pregnant group relative to the females in the nonpregnant group ($U=149.5$, $p < .05$).

Additional predictions were made for values that might be either indirectly supportive or nonsupportive of an increased concern with family well-being. The prediction that Loving defined as affectionate and tender would increase in importance at the transition to parenthood was supported. While the pregnant and nonpregnant groups were found not to differ at the third month of pregnancy on their ranking of Loving, both the males and the females in the pregnant group showed significantly greater increases in rankings of Loving relative to the males and females of the nonpregnant group ($U=143.5$, $p < .05$ for males; $U=112.5$, $p < .01$ for females). When the ranking of Loving was examined relative to the ranking of Mature Love, the signed difference between these two values was also not significant at the third month of pregnancy, but a shift toward a greater difference between the two values occurred for the females in the pregnant group between the third month of pregnancy and the third month postpartum ($U=129.5$, $p < .02$). No change in the difference between these two values over the transition to parenthood occurred for males.

Aside from the value Loving which seems to be importantly influenced by the transition to parenthood, there was little evidence that the less central peripherally supportive and nonsupportive values--i.e. those that either may indirectly encourage or interfere with the attainment of Family Security--undergo important shifts at the transition to parenthood. Neither the terminal value A Comfortable Life nor the Impulse Control value composite became more important at the transition to parenthood, although the ranking of the Impulse Control composite was marginally significantly higher for the males in the pregnant group at the first interview. Similarly, the Pleasure-Self-Enhancement composite did not become less important for the subjects in

the pregnant group relative to the subjects in the nonpregnant group and also did not differentiate the two groups at the first interview.

Insert Table 5 about here.

Post-Partum Self-Reports of Value Change

Examination of the new parents' responses to the Structured Values Interview items administered at the third month post-partum supported the findings of the Value Survey and the Amoral Familism Scale and helped clarify the nature of the values changes which were occurring. Of the husbands, 84.6% and 87.8% of the wives indicated that at least one of their five most basic values had changed in importance over the time of the pregnancy and early months of having the baby. Virtually all the new parents who indicated that their values had changed in importance were able to elaborate on why a particular value had changed and in 77% of their elaborations, values changes were attributed directly to having the baby. Parents were also asked to compare the extent to which their values changed over the year of their transition to parenthood with the extent to which their values had changed during the first year of their marriage. The transition to parenthood was reported to be the period of greater values change by 50% of the fathers, while 38% indicated that the first year of marriage was the time of greater change and 11.5% stated that there had been equal change during both periods, or no change during either period. An even larger majority of the mothers also reported greater value changes at the transition to parenthood than at the time of their marriage. Of the mothers, 71.4% reported that the greatest change occurred with parenthood, while 17.9%

stated that the greatest change occurred at the time of getting married and another 10.7% reported equal change at both periods or no change at either period. A rating system was developed to examine the types of explanations given by subjects for either first parenthood or marriage resulting in greater value change. Individuals who believed that the transition to parenthood was a time of greater value changes tended to cite as their reason that the value changes were caused by the shifts in lifestyle that occurred with the pregnancy and birth of the baby, which they felt were greater than the lifestyle changes that occurred with marriage. Among the lifestyle shifts frequently mentioned were being in a position for the first time where one is responsible for another person totally dependent on oneself, and having to constantly think of how one's decisions and actions will impact on the baby. These findings strongly support the importance of the transition to parenthood in values change.

The new parents' self-reported values were generally consistent with the Rokeach terminal and instrumental value categories, suggesting that these categories are salient value dimensions at the transition to parenthood. However there was one group of frequently reported values which could not be coded with the Rokeach categories. This was given the label Empathy and was described by the new parents as an increased concern for, and understanding of, other people with whom they had direct personal contact--i.e. people in their close circle of relationships. Empathy was reported as one of the 5 most important values by 21% of the new parents, more often than all but 7 of the 36 Rokeach values.

Responses to the nonstructured interview also shed some further light on the reason for changes in social justice and social responsibility values

among new parents. When asked directly whether they felt there had been a change in their level of concern for the welfare of others outside their family, almost 75% of the new parents reported some change. However, unlike the findings for the objective values measures, about twice as many of the new mothers and fathers who reported change stated that they had become more, rather than less, concerned with others outside their family. An explanation for the divergence between the subjective reports of change and the result of the objective measures can be found through an examination of the statements the new parents gave in accounting for the perceived change. The reports of increased concern for others were phrased primarily in terms of increased concern for specific individuals in the new parents' immediate environment, such as other new parents and their children with whom they had contact. Thus, they were largely reporting increases in the Empathy value described above. On the other hand, the new parents seldom reported increased concern for others at a broader, societal level, such as was measured by the value Equality of the Rokeach Values Survey. The most frequent reason given by the new parents who reported becoming less concerned with others outside the family was that all psychological energies and material resources were now being directed toward the new child and to the adjustments being made in the family. This explanation is consistent with the expectation that increased concern with family results in decreased societal concern, generally.

Discussion

The results of this study generally support a model of value system change at the transition to parenthood in which family-focused values increase in importance while values of social justice and social responsibility decrease in

importance. The finding that the most instances of significant overall value system change occurred for the new fathers, supports current thinking (e.g. Gutmann,1975) that first parenthood is an important transition for fathers as well as mothers. It is also consistent with other recent studies which, in attempting to identify variables that predicted the extent of experienced crisis, have found that those variables studied more often discriminate low from high "crisis" fathers than they discriminate low from high "crisis" mothers (see review by Russell, 1980). More variance has been found in new fathers' parenting attitudes and behaviors than in those of new mothers. (Goldberg 1981, Easterbrooks 1982). Presumably new fathers have had less anticipatory socialization for parenthood than new mothers, and may have even experienced negative socialization, i.e.,socialization to avoid thinking about parenthood and to focus instead on instrumental pursuits such as a future career. This finding, together with the finding that value system change was greater for new parents where the wife experienced significant medical complications during the pregnancy, and for new parents who had not actively planned to have a child, support a life-span developmental model in which change emerges out of stress or crisis at a particular developmental event or life transition (e. g., Erikson, 1953; Rapoport,1963; Levinson, 1978). Further data analyses are planned to examine whether events like changes in parental work patterns, marriage relations, and the like, are related to values changes. The findings also support those theorists and researchers who argue that developmental models should move away from strict age stratification and focus, instead, on developmental events and transitions which may occur within a fairly wide age range (e.g., Baer, 1970; Hultsch & Plemons, 1979; Hill & Mattessich,1979).

The question of whether the value shift toward family concerns and away from societal concerns continues into later stages of the individual's and family development is a critical one for future research, which will need to follow this change over the long term. It is possible that the shift toward

valuing family security to the detriment of societal concerns is only a temporary one, tied to the need to put the new family on a firm footing and that, in this sense, it is an adaptive accomodation to the rigorous demands of new parenthood. If this is so, one would expect that once the crisis period passes, the parents would turn their attention back to concern and responsibility for society as a whole, perhaps first through community contacts that concern their child directly, such as day care center or school involvement. On the other hand, it is possible that these values changes are of a more permanent nature and mark developmental shift away from the idealistic, ideological orientation that predominates in adolescence and early adulthood (e.g., Erikson, 1968; and see review by Hoffman, 1981) to what has sometimes been seen as a less involved, less socially-concerned adult stance. Further research will also need to pinpoint the time during the transition to parenthood when value change begins and determine the role played by particular events and sub-stages of the transition period (e.g., decision to have a child, first trimester of pregnancy, quickening, birth, etc.) in this process. It will also be necessary to determine in detail how individual differences in the transition to parenthood experience, as well as individual differences in the personality characteristics of the parents, affect the nature, timing, and degree of value changes. The present study has made a start in this direction by showing that value change was greater when the pregnancy was unexpected and when the pregnancy was accompanied by significant medical problems. Other variables which have been addressed in transition to parenthood research, such as timing of the pregnancy, level of marital adjustment, husbands' and wives' work status, the availability of support systems for the couple, etc. should be investigated with respect to their impact on the value system.

Value changes should also be investigated in families of different class and cultural backgrounds, and in single parent as well as traditional nuclear families.

Finally, further work is needed to explore how values changes at first parenthood may be influenced by the social, historical and economic context in which the transition to parenthood takes place (Hill & Mattesich, 1979). For example, in a small affluant community with many family supports, the new parent might not experience the transition to parenthood as a crisis requiring him or her to choose between the welfare of the family and the welfare of people outside the family. Thus, the finding that new parents became amorally familistic may not be a universal developmental occurrence. On the other hand, the increased empathy and caring about people in one's immediate circle reported by the new parents may turn out to be a universal developmental phenomenon, independent of the historical, social and economic context within which the transition to parenthood takes place.

Inherent in studying a life-span developmental event under naturalistic conditions are the design limitations of quasi-experimental research; e.g., subjects cannot be randomly assigned to groups, life events and the experience of the pregnancy itself cannot be controlled, the researcher cannot be present to take measurements immediately before or after the pregnancy begins, etc. Within these limitations, however, this study has improved methodologically over much previous research in this area through: (a) its use of longitudinal assessments of values beginning early in the pregnancy; and carrying through into the post partum months, (b) its utilization of a control groups; (c) the utilization of multiple measures including an objective test of values, a projective test, and interview reports.

Aside from the above design limitations, there are limitations to what can be learned about value change at the transition to parenthood posed by the lack of sufficient development and testing of theoretical models by psychologists interested in studying human values. While Rokeach's model of hierarchical arrangement of instrumental and terminal values has been used productively in this and previous studies, many crucial questions about the nature of the value system remain unanswered and even uninvestigated. For example, perhaps the transition to parenthood is marked more by a change in the domain in which one acts on one's values (i.e. the domain of family), rather than in the actual degree of importance attached to one's values.

The inadequacies of currently existing theoretical models and instruments to measure values would generally work against the possibility that the predictions of value change made in this research would be supported. For example, the fact that subjects may hesitate to report that they have become more amorally familistic because of a social desirability response bias, or because they may want to appear to be consistent in their responses over time, would make it less likely that the hypotheses of increasing amoral familism over the transition to parenthood would be borne out. The fact that, despite this, the amoral familism hypothesis was partially supported, suggests that the transition to parenthood may actually have a very important influence on amoral familism. Further research is needed to examine the process by which the transition to parenthood may lead to conditions in which the new parent must choose between the welfare of the family and the welfare of society. The finding that new parents became more amorally familistic may not be a universal developmental occurrence.

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Footnotes

[1]Two of the 28 pregnant couples did not receive a second interview due to the occurrence of medical complications around the time when the second interview was to be scheduled. These couples did complete their third interviews. Two other pregnant couples withdrew from the study after the second interview. One of these cited the lack of available time as the reason for dropping out, while the second moved and could not be located. Their responses were not included in any of the longitudinal analyses to be described.

Of the 33 nonpregnant couples, 6 became pregnant and 7 became separated or divorced during the course of the study. Two other nonpregnant couples dropped out of the study before completing all three scheduled interviews, citing lack of time as their reason for not continuing. Their data also were not used in any of the longitudinal analyses to be described.

[2]Subjects were also asked to respond to several other interview items which were of an exploratory nature and will not be analyzed.

[3]Since the comparison of values differences and values changes to be reported were preplanned and since these represent only a minority of the total number of possible comparisons, the nonindependence of the planned comparisons should be of little importance (Guenther, 1964; Winer, 1971). A discussion of simultaneous statistical inference may be found in Miller (1966).

Table

Background and Personal Characteristics of the Pregnant and Nonpregnant Subjects

Background variables	Pregnant group N=88		Nonpregnant group N=66	
	Mean	Standard deviation	Mean	Standard deviation
Length marriage (years)	3.6	2.1	3.7	2.2
Hollingshead education subscale	5.8	1.1	6.0	1.1
Age (years)	28.3	7.6	29.1	3.7
Duncan SES scale score	62.4	15.4	64.5	19.4
Degree of religiosity	1.0	0.7	0.9	0.8
Religious affiliation:				
Catholic	21.4%		36.9%	
Jewish	7.1%		0.0%	
Protestant (nonfundamentalist)	42.9%		49.2%	
Protestant (fundamentalist)	10.7%		7.7%	
No affiliation	17.4%		6.2%	

Table 2

Results of Mann Whitney U tests of Change in the Overall Terminal, Instrumental, and Combined Value Systems Across the Three Interviews

Average absolute value change	Interview 1 to 3 U value		Interview 1 to 2 U value		Interview 2 to 3 U value	
	Males	Females	Males	Females	Males	Females
Terminal value system	155.5[a]	194.0	139.0[b]	175.0	150.5[a]	204.5
Instrumental value system	109.0[c]	177.5	109.5[c]	148.0[a]	104.5[c]	189.0
Combined value system	98.0[c]	199.0	105.0[c]	185.5	113.5[c]	194.5

[a] $p < .10$ [b] $p < .05$ [c] $p < .01$

Table 3

Results of Mann Whitney U Tests of Total Value System

Change in Problem and Nonproblem Pregnancies

Average absolute change	Interview 1 to 3 U values	
	Males	Females
Terminal value system	9.5	10.0
Instrumental value system	4.5[a]	2.0[b]
Combined value system	4.0[b]	5.5[a]

[a] $p < .10$ [b] $p < .05$

Table 4

Results of Mann Whitney U Tests of Total Value System Change in Planned and Unplanned Pregnancies

Average absolute change	Interview 1 to 3 U values	
	Males	Female
Terminal value system	25.5	15.5[b]
Instrumental value system	16.5[b]	23.5
Combined value system	17.0[b]	13.5[b]

[b] $p < .05$

Table 5

Results of Mann Whitnes U Tests on Changes in Target Values Between the First and Third Interviews

Target value	Males U value	Females U value
Family Security	119.0[c]	177.5
Equality	177.0	173,5
Difference of Equality and Family Security	155.5[a]	200.0
Amoral Familism Score	175.5	149.5[b]
Loving	143.5[a]	112.5[c]
Difference of Loving and Mature Love	165.0	129.5[b]
Comfortable Life	162.5	162.5
Impulse Control Composite	203.0	156.0
Pleasure and Self-Enhancement Composite	177.5	176.5

[a] $p < .10$ [b] $p < .05$ [c] $p < .01$

Note: For all the target values except Amoral Familism, a low mean signifies a high ranking. For Amoral Familism, a high mean signifies a high rating.